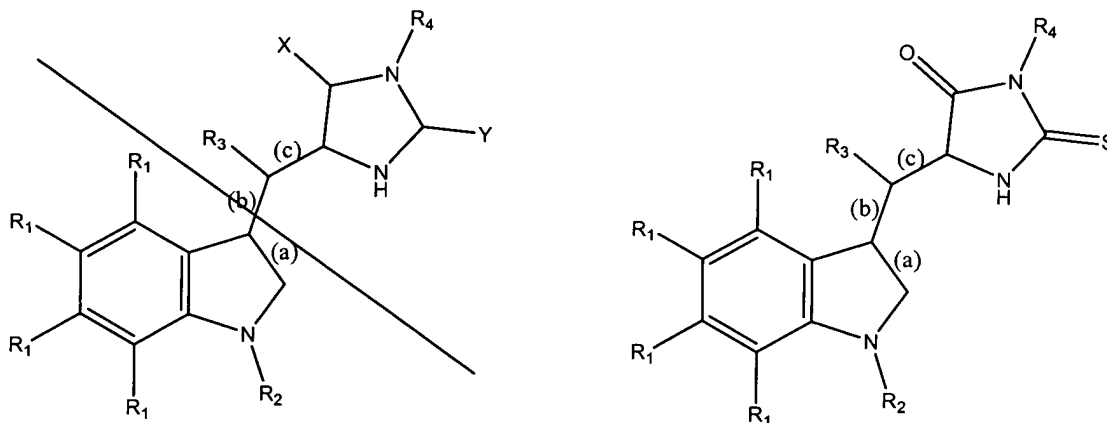


9. (Currently amended) A method for decreasing necrosis, said method comprising treating a cell with a chemical compound, said compound of the formula:



wherein

each R_1 is independently selected from the group consisting of hydrogen, methyl, carboxy, hydroxyl, methoxyl, amino, and nitro;

R_2 is selected from the group consisting of hydrogen, alkyl, and acyl;

R_3 is selected from the group consisting of alkyl, acyl, halogen, hydrogen, and hydroxyl;

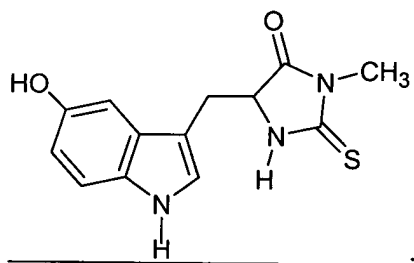
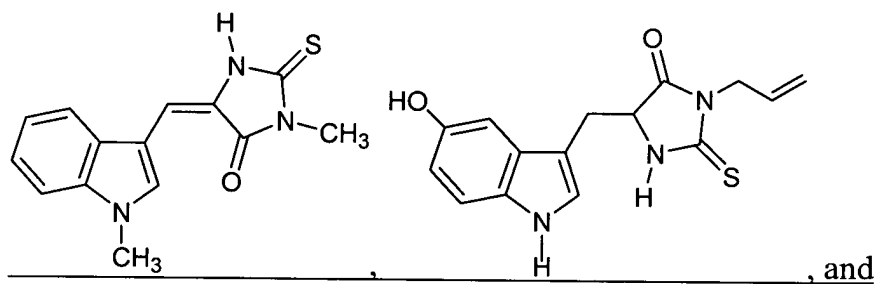
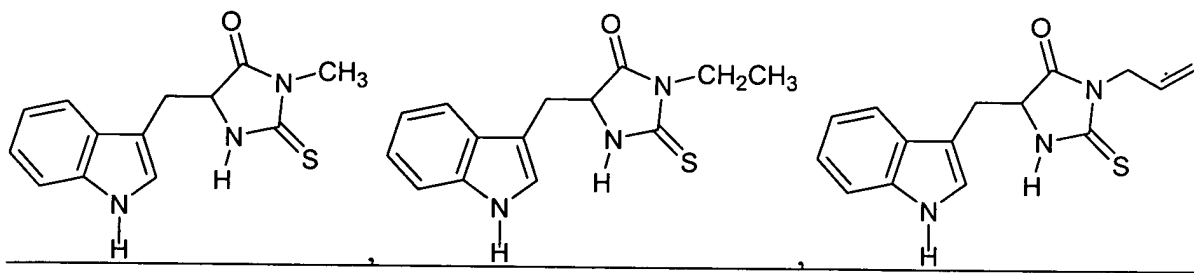
R_4 is selected from the group consisting of methyl, hydroxyl, carboxyl, and linear and branching alkyl groups; and

~~X is selected from the group consisting of =O, OH and H;~~

~~Y is selected from the group consisting of =S and SR_5 ; and~~

each of the bonds (a), (b), and (c) independently is either a double or single bond, provided, however, that bond (a) and bond (b) are not both double bonds.

10. (Currently amended) The method of claim 9, wherein [[in]] said compound is selected from the group consisting of:



~~each R_1 is hydrogen;~~

~~_____ R_2 and R_3 are each hydrogen;~~

~~_____ R_4 is a methyl group;~~

~~_____ X is $=O$;~~

~~_____ Y is $=S$;~~

~~_____ bond (a) is a double bond; and~~

~~_____ bonds (b) and (c) are each single bonds.~~

Claims 11-16. (Withdrawn).

17. (Previously amended) The method of claim 9, wherein said cell is capable of

undergoing necrosis in the presence of zVAD-fmk and TNF .

18. (Previously amended) The method of claim 9, wherein said cell is capable of undergoing necrosis in the presence of zVAD-fmk and DMSO.

19. (Previously amended) The method of claim 9, wherein said cell is mammalian.

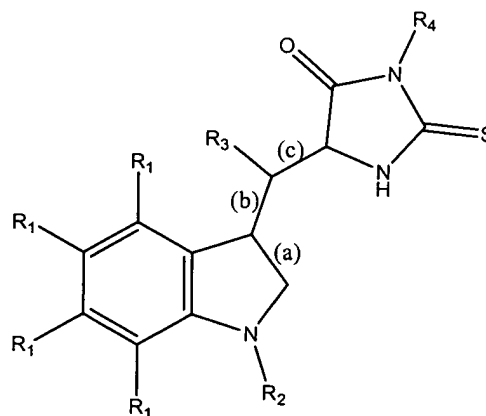
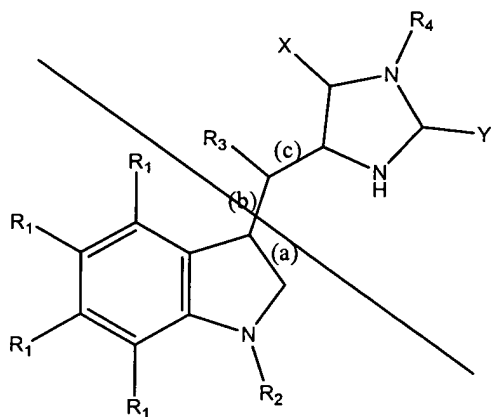
20. (Original) The method of claim 19, wherein said cell is human.

21. (Original) The method of claim 19, wherein said cell is a neuron.

22. (Original) The method of claim 19, wherein said cell is a rodent cell.

23. (Previously amended) The method of claim 9, wherein said compound is in a pharmaceutically acceptable carrier.

24. (Currently amended) A method for treating a condition in a patient, wherein decreasing necrosis is of benefit, said method comprising the steps of administering a chemical compound having the formula:



wherein

each R_1 is independently selected from the group consisting of hydrogen, methyl, carboxy, hydroxyl, methoxyl, amino, and nitro;

R_2 is selected from the group consisting of hydrogen, alkyl, and acyl;

R_3 is selected from the group consisting of alkyl, acyl, halogen, hydrogen, and hydroxyl;

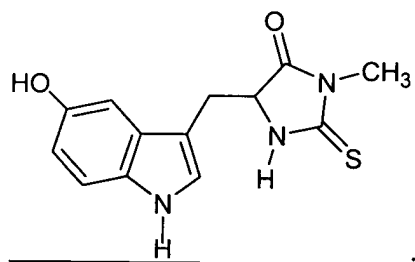
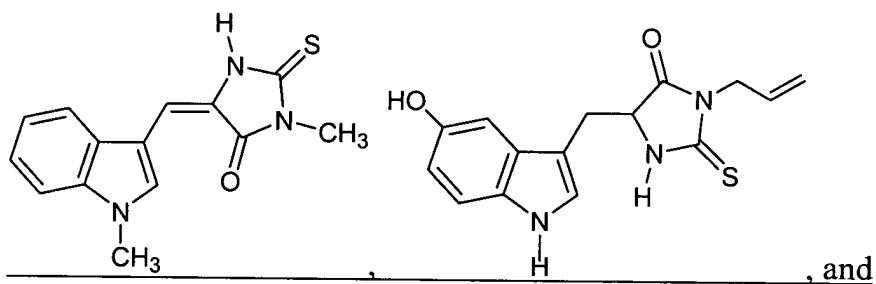
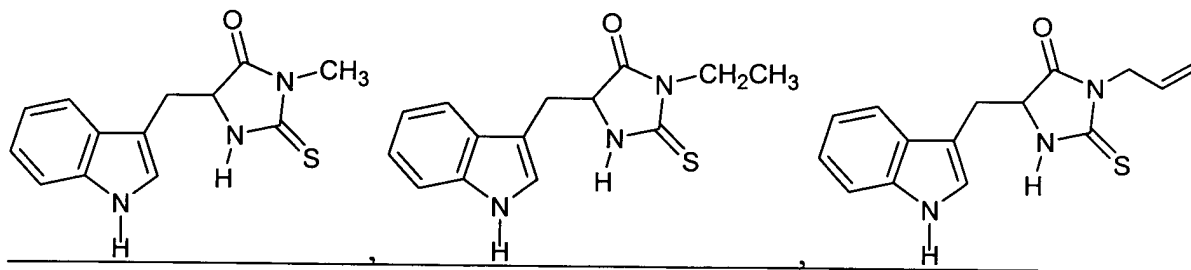
R_4 is selected from the group consisting of methyl, hydroxyl, carboxyl, and linear and branching alkyl groups; and

~~X is selected from the group consisting of =O, OH and H;~~

~~Y is selected from the group consisting of =S and SR_5 ; and~~

each of the bonds (a), (b), and (c) independently is either a double or single bond, provided, however, that bond (a) and bond (b) are not both double bonds

25. (Original) The method of claim 24, wherein [[in]] said compound is selected from the group consisting of:



~~each R₄ is hydrogen;~~

~~_____ R₂ and R₃ are each hydrogen;~~

~~_____ R₄ is a methyl group;~~

~~_____ X is =O;~~

~~_____ Y is =S;~~

~~_____ bond (a) is a double bond; and~~

~~_____ bonds (b) and (c) are each single bonds.~~

Claims 26-31. (Withdrawn).

32. (Previously amended) The method of claim 24, wherein said condition is a neurodegenerative disease.

33. (Previously amended) The method of claim 32, wherein said neurodegenerative disease is selected from the group consisting of Alzheimer's disease, Huntington's disease, cerebral ischemia, stroke, amyotrophic lateral sclerosis, multiple sclerosis, Lewy body disease, Menkes, disease, Wilson disease, Creutzfeldt-Jakob disease, and Fahr disease.

34. (Previously amended) The method of claim 24, wherein said condition is selected from the group consisting of ischemic brain injury, ischemic heart injury, and head trauma.

35. (Previously amended) The method of claim 24, wherein said subject is a mammal.

36. (Original) The method of claim 35, wherein said subject is a human.

37. (Original) The method of claim 35, wherein said subject is a rodent.

Claims 38-40: (Withdrawn)

41. (Previously amended) The method of claim 24, wherein said condition is a neurodegenerative disease, stroke, liver disease, pancreatic disease, ischemic brain injury, ischemic heart injury, ischemic injury to non-cardiac and non-neural tissue, head trauma, necrotic ulceration, septic shock, coronary heart disease, gastrointestinal disease, tuberculosis, viral infection, or conditions associated with HIV infection or AIDS.